



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/816,664

04/01/2004

Robert C. Otterson

1360-001/ddh

1040

21034

7590

06/19/2006

IPSOLON LLP  
111 SW COLUMBIA  
SUITE 710  
PORTLAND, OR 97201

EXAMINER

PATEL, RITA RAMESH

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/816,664

Applicant(s)

OTTERSON, ROBERT C.

Examiner

Rita R. Patel

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Applicant's Arguments***

This Office Action is responsive to the amendment filed on 6/7/06. Claims 1-20 are pending. Claims 16-20 are withdrawn from further consideration as being drawn to a non-elected invention. Claims 1 and 4 have been amended. Applicant's arguments have been considered upon further consideration, but are not persuasive.

In response to applicant's argument that other structural features described in the patents of Chayer and Straiton are not structurally equivalent to elements in the claims, the Office would like to make a distinction that the applicant does not necessarily claim these features. Moreover, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Secondly, applicant contests that Chayer's wand 12 is a handheld wand that is separated from the chassis; the wand is not in any way connected to the chassis and certainly is not mounted to the chassis. Chayer's wand 12 and hose 16, 48 reads on applicant's claim for a handheld wand. Additionally, said wand and hose assembly, as seen in Figure 1, are integrally attached to the push cart 20, which reads on applicant's claim for a chassis. Thus, the wand is connected and mountable to the chassis. Similarly, the spray shield 210 taught by Chayer is connectively attached to the spray wand for occluding and disseminating liquid therefrom.

Moreover, applicant argues that since Chayer does not describe a rotary valve at all, the wand cannot be connected to a rotary valve; this is unfounded because as

Art Unit: 1746

obviated by the prior Office Action, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine said feature to Chayer, as taught by Straiton. See Chayer-Straiton combination made below.

Applicant argues that Straiton does not describe a rotary valve, let alone a rotary valve with wands connected to it, and with nozzles connected to the wands. However, Straiton teaches a surface cleaner with a water-blast nozzle 5 which reads on applicant's claim for a spray wand. The water blast nozzle is capable of the same spraying functions as applicant's claimed spray wand. The blast nozzle of Straiton includes connection thereto a nozzle plug. Applicant claims a rotary spray nozzle is structurally very different from the structure called out in the claims for the present invention and is not mounted to the chassis and cannot be rotated as the wands rotate, as required by the claims. Applicant, however, fails to not specifically how the rotary spray nozzle of Straiton is different from the claimed limitations of said application. Re amendments made by applicant, Straiton's nozzle plug 35 reads on applicant's claim for a rotary valve, in that the nozzle plug is a spray adjustor that can adjust the pressure and area of a liquid jet emitted therefrom the outlet orifice 8, thus the nozzle plug can produce a rotation of the liquid spray and cause the wand to rotate. Additionally, it is understood that as the pressure is increased, the rotational movements of the spray nozzle are likely to increase concurrently. Furthermore, Straiton's spray wand and nozzle plug are inherently formed into a singular system with the chassis, thus negating applicant's claim stating otherwise. See Figures 1 and 3.

Also, applicant claims Chayer specifically shapes his spray shield similarly to the spray pattern so that the spray shield assists in directing the spray onto the car, not so that a portion of the spray is occluded (col. 7, lines 25-37). The office maintains its prior rejection in that the spray shield of Chayer does occlude a portion of the spray path; with occlude defined as, to cause to become closed; obstruct (*The American Heritage Dictionary of the English Language*, © Houghton Mifflin Company 2003).

Applicant argues that the references fail to teach or suggest any structure that would be capable of interrupting a spray pattern through any portion of the rotational arc; however, the spray path is taught by Chayer to be angularly sprayed along a path of 360°, thus the occlusion device of Chayer inherently is able to intercept a spray pattern through any portion of the rotational arc.

Therefore, Chayer and Straiton obviate applicant's claims wholly, and thus claims 1-15 are finally rejected for the reasons of record.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chayer (US Patent No. 5,029,758) and further in view of Straiton (US Patent No. 5,898,970).

Chayer teaches a portable car wash system that includes a push cart 20 mounted on wheels 22 and contains a water supply tank 42, an engine 40, and low- and high-pressure pumps 50 and 52. The engine drives the pumps. The low-pressure pump pumps water out of the tank and the high-pressure pump boosts the pressure of the water. The high-pressure water is delivered to a wand 12 via a hose 16 attached to a hose reel 48. The wand includes a positionable head 13 that can be aimed to direct a high-pressure spray 224 from a nozzle 208. Also, a spray shield 210 reduces overspray from the nozzle (Abstract). The water supply tank includes an opening 70 and a cap 72 (col. 5, lines 55-56). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide said invention with multiple cleaning wands to provide increased outlets usable for cleaning; more than one user may thus operate the apparatus at any give time, also, one user may operably use multiple wands at the same time, that are directionally oriented in any angular direction towards the surface for achieving improved cleaning. It is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 124 USPQ 378 (CCPA 1960).

Although Chayer fails to specifically disclose use of a rotary valve in said invention, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate a rotary valve with the cleaning wand in Chayer, as taught by Straiton to achieve adjustable fluid spray therein for cleaning surfaces; it is commonly known to use rotary valves for achieving said functions in the art of cleaning surfaces using pressurized spray nozzles as demonstrated herein. Straiton teaches a surface

Art Unit: 1746

cleaner with a water-blast nozzle 5 positioned on a cleaning enclosure 1 to direct a high-pressure and low-volume jet stream of water 36, 37 at an attitude onto a surface 4 being cleaned. Depicted in Figures 3 and 6 of Straiton is a spray adjustor such as a nozzle plug 35 for adjusting pressure and area of a water jet emerging from the outlet orifice 8. Other types of spray adjustors are foreseeable. This one is similar in principle to some conventional garden-hose spray nozzles or water pressure cleaner systems which utilize fan or rotary spray nozzles. It adjusts water blast between a high-pressure spray 36 over a broad area and a coarse-flow spray 37 over a smaller area within the cleaning enclosure 1. The variable area of water spray provided by nozzle plug 35 works independently of the force valve 21 which adjusts the suction force in the open interior volume of the cleaning enclosure 1 against the intended surface to be cleaned 4 (col. 4, lines 64-67; col. 5, lines 1-8). Straiton's nozzle plug 35 is a spray adjustor that can adjust the pressure and area of a liquid jet emitted therefrom the outlet orifice 8; therefore, the nozzle plug can produce a rotation of the liquid sprayed and cause the wand to rotate. As the pressure is increased, the rotation movements of the spraying nozzle may similarly to increase in occurrence. Reverting back to the aforementioned garden hose principle, if the nozzle and hose is left in a still position, and a valve or spray adjustor mechanism is used to increase pressure, the pressure will invariably cause the spray fluid to be emitted in a rotatable fashion whereby the nozzle head is caused to move rotatively and thus emitted liquid in such a pattern; this known understanding of limited fluid flow within a cavity and pressure control can be applied to Straiton.

Straiton teaches that the rotary spray results in liquid sprayed over a broad area and Chayer teaches that the cleaning spray wand may be angularly adjustable along any of a 360° path; in Chayer the spray nozzle 208 is connected to an end of a flexible neck 206. The nozzle discharges the high-pressure water from the hose 16 as a high-pressure spray 224. The head 13 of the wand 12 is positionable. This feature is made possible by the combination of the flexible neck 206 and locking member 204. The rod 212 of the locking member 204 is pivotally connected to the base 216 of the spray shield 210. The other end of the rod 212 is connected to the locking ring 214. The locking ring 214 is placed over the handle 200. By moving the locking ring 214 to a desired position on the handle 200, the water spray from the nozzle 208 can be aimed in a particular direction (col. 7, lines 19-22, 41-48, and 62-64); which reads on applicant's limitations wherein the nozzle may be caused to rotate in a circular pattern and be ably oriented so that high pressure fluid is sprayed from the nozzles toward the surface to be sprayed. In turn, the spray shield 210 taught by Chayer is capable of occluding fluid flow about the 360° path. Moreover, the spray shield is seen to be located between the spray nozzle 208 and the surface to be sprayed, as seen in Figure 2.

Applicant's claim for a first valve is taught by Straiton's teaching of an air control valve 21; applicant's claim for a second valve is taught by Straiton's teaching of valve 24; desired balance of vacuum in the cleaning enclosure can be provided by vacuum control means. A preferred means for maintaining vacuum pressure is a hand-operative air control valve 21 in an orifice 22. Decrease of opening area of the hand-operative



Art Unit: 1746

valve increases vacuum pressure tightness of sealing with the surface seal 14.

Conversely, increase of opening area of the hand-operative air control valve 21

decreases vacuum pressure and subsequent tightness of sealing with the surface seal

14. The vacuum control orifice 22 can be in an appropriate portion of the cleaning

enclosure that is not occupied by the water-blast nozzle 5 as shown in Figures 1-2 and

4-5. The valve 24 on the vacuum tube assembly handle provides a means to turn high

pressure water passing through the tube 12 on and off during the cleaning process.

Once high pressure water is exiting the nozzle 7 within the cleaning enclosure 1, the

only remaining adjustment is to set the proper balance between the vacuum or suction

within the bottom portion 2 of the head assembly 1 and the ease of movement across

the intended surface to be cleaned 4. The latter is accomplished preferably through the

air control valve 21, which is initially set in the closed position. The valve 21 is manually

opened allowing ambient air to enter the bottom portion 2 of the head assembly 1,

resulting in less vacuum pressure being exerted against the surface 4, making it easier

to move the contact gasket 14 across the surface 4. As wastewater is vacuumed and

transported to the tank 11, the submersible pump within the tank 11 transports the

wastewater to an external drain through line 20. The operation is continued until the

surface is cleaned. Different surfaces may require a different balance of vacuum

pressure which can be adjusted by opening or closing the manual valve 21 as

necessary (col. 4, lines 13-23; col. 5, lines 19-38). It would have been obvious to one of

ordinary skill in the art at the time of the invention to use such first and second valves in

Chayer to provide such fluid flow disclosed above, as shown by Straiton, with

expectation of controllable fluid pathways therethrough for achieving optimal cleaning as required by the surface to be cleaned. This results in increased usability and convenience to user in terms of controlling fluid flow, in addition to providing environmentally viable options of operations which minimize the waste of fluid used therein. Air control valve 21 and valve 24 of Straiton may both be in a second position whereby water is directed through the high pressure outlet of the second valve.

Chayer's teaching of a pressure relief valve reads on applicant's claim for a pressure regulating valve; turning now to Figure 2, in accordance with the preferred embodiment of the invention, the water delivery system 44 comprises: a low-pressure pump 50; a high-pressure pump 52; and, a pressure relief valve 54 (col. 4, lines 39, 44-48).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RRP

  
MICHAEL BARR  
SUPERVISORY PATENT EXAMINER